

IB Math Studies

Arithmetic Sequences

Assignment #2

Remember: The n th term of an arithmetic sequence with first term U_1 and common difference d is given by the formula $U_n = U_1 + (n-1)d$

Solve the following. Assume each sequence is an arithmetic sequence.

- 1) Find the 19th term in the sequence for which $U_1=11$ and $d=-2$
- 2) Find the 16th term in the sequence for which $u_1=1.5$ and $d=.5$
- 3) Find n for the sequence for which $u_n=37$ $u_1= -13$ and $d = 5$
- 4) Find n for the sequence for which $u_n= 633$ $u_1=9$ and $d = 24$
- 5) Find the first term in the sequence for which $d=-2$ and $U_7 = 3$
- 6) Find the first term in the sequence for which $d = \frac{2}{3}$ and $u_8 = 15$
- 7) Find d for the sequence for which $U_1 =4$ and $u_{11} = 64$
- 8) Find d for the sequence for which $U_1= -6$ and $u_{29} = 20$
- 9) Find the 43rd term in the sequence $-19,-15,-11,\dots$
- 10) Find the 58th term in the sequence $10,4,-2,\dots$